Varian STAR 800 & 850 MIB Control Driver User Guide

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Publication Number BR501548
Revision D

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Introduction

The STAR 800 & 850 MIB is an Ethernet enabled, analog-to-digital and serial communication interface between chromatographic instruments and the CompassCDS software. It enables the CompassCDS software to communicate with chromatographs without the need for a direct physical connection between CompassCDS computers and these instruments.

The STAR 800 & 850 MIB is used to either acquire analog input or digital (RS232) signals.

The STAR 800 & 850 MIB communicates with CompassCDS computers over a 10BaseT Ethernet configuration using TCP/IP protocol.

Several MIBs can be managed by the same CompassCDS computer(s). These interfaces must be declared and configured in the CompassCDS Configuration Manager as shown in the example below.

STAR 800 & 850 MIB Driver Installation

STAR 800 & 850 MIB driver installation is performed by launching STAR 800 & 850-MIB_Setup.exe on the station where CompassCDS software is installed.

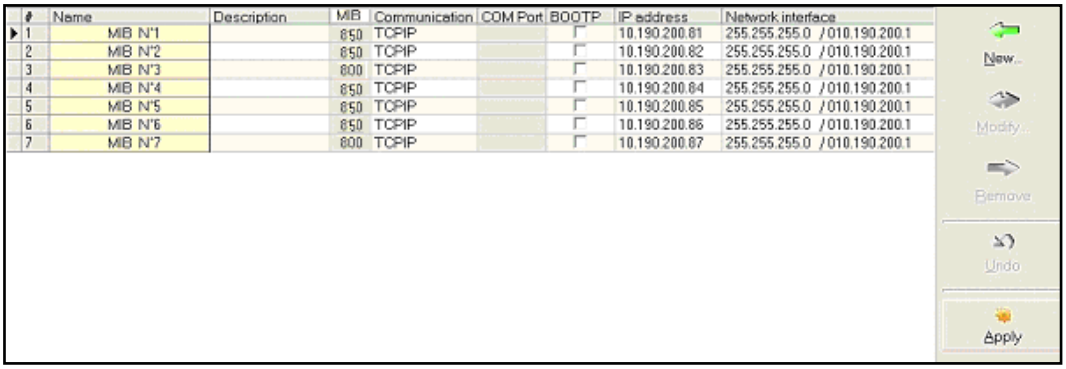
A serial number is required for the installation.

NOTE: The CompassCDS STAR 800 & 850 MIB driver can control both the legacy 800 MIB and the 850 MIB.

STAR 800 & 850 MIB Configuration

To configure the MIB on the CompassCDS computer, open the CompassCDS Configuration Manager, then select

in the Tools tab of the browser, or select the menu Option and click on Interface Configuration. This screen lists all the STAR 800 & 850-MIBs already configured, and allows the user to declare a new one.



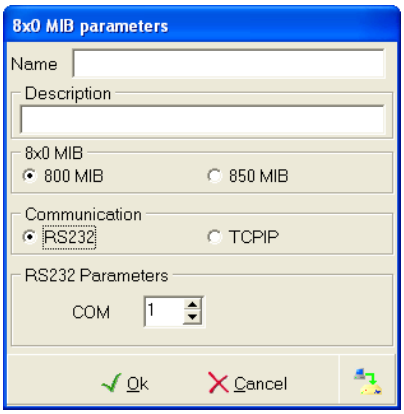
: to add an MIB

: to modify parameters of an existing MIB

: to remove an MIB that will be no longer used.

: to apply changes performed. Note that if you add a new MIB and forget to press the apply button, the MIB will not be available for use.

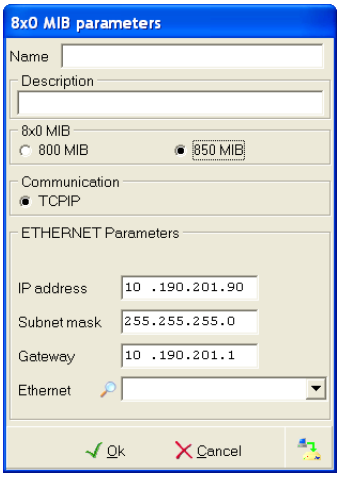
To add an MIB to the list, click on New. The following dialog box will be displayed:



Enter the Name of the STAR 800 & 850 MIB. This name will be used by CompassCDS to identify the STAR 800 & 850 MIB, and will be displayed in the driver configuration screen of an instrument using an MIB. This field must be filled in with a unique name.

The Description field may be entered to provide additional information about the MIB. It is not mandatory

Select the Interface type: 800 or 850 MIB.

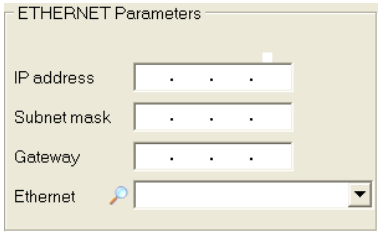


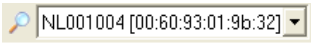
Only the TCP/IP configuration is then available.

The Ethernet parameters section enables the identification of the MIB. Each STAR 800 & 850 MIB must be assigned a unique IP address.

Defining and loading Ethernet parameters into a STAR 800 & 850 MIB

To define and load Ethernet parameters into a STAR 800 & 850 MIB, both the CompassCDS computer (where the configuration is to be performed) and the STAR 800 & 850 MIB must be connected into the same subnet and powered on



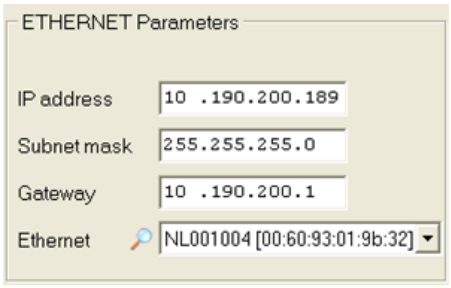
1. Select the MIB you want to configure by selecting its Ethernet address in the 

scrolling list. This scrolling list displays the Ethernet addresses of all connected STAR 800 & 850 MIBs.

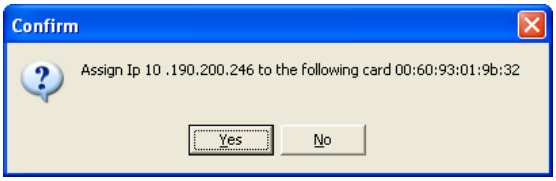
   Click on to refresh the list.

   Select the desired Ethernet address (if the desired STAR 800 & 850 MIB is not listed, reboot it and refresh the list).

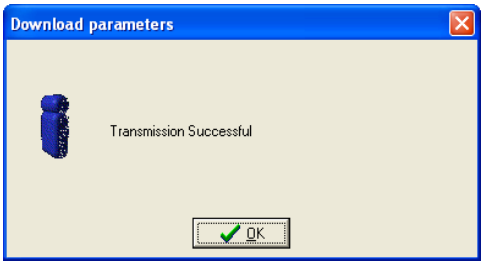
2. Enter the IP address, Subnet mask and (if required), a Gateway. These parameters are usually provided by a network administrator.



3. Click on to download the IP address and Subnet mask into the STAR 800 & 850 MIB. The following message is displayed:



   Click Yes. A successful message is displayed:



Click to validate the MIB configuration/declaration.

Declaring a STAR 800 & 850 MIB (Ethernet parameters already loaded in the MIB)

1. For a STAR 800 & 850 MIB configured within the same subnet as the CompassCDS acquisition and control computer:

   Click the button, then select the desired STAR 800 & 850 MIB from the scrolling Ethernet list. The IP address and the Subnet mask will be automatically filled in. It is up to user to define the Gateway.

2. For an STAR 800 & 850 MIB configured within a subnet to that of the CompassCDS acquisition and control computer:

   The STAR 800 & 850 MIB Ethernet address cannot be reached via the scrolling list. It is up to the user to manually enter a valid IP address, Subnet mask and Gateway for the STAR 800 & 850 MIB.

   In both cases, click to validate the MIB declaration.

Buffering

The STAR 800 & 850 MIB is fitted with 1 GB memory card. This card is designed to store analog acquisition points from connected chromatographic instruments, in cases where network communication between the STAR 800 & 850 MIB and the CompassCDS acquisition and control computer has been interrupted.

Interface Supervisor

The Interface Supervisor tool allows you to check the STAR 800 & 850 MIB state in real time. To start this tool in the CompassCDS Configuration Manager click on

or select the Options / Interface Supervisor menu.

Each MIB is represented by an interface symbol followed by its name.

For each STAR 800 & 850 MIB, the resources list [analog channels (ANALOG)], relays (RELAYS), RS-232 serial ports (RS-232) are also displayed, as well as the channel state:

Channel 1 : allocated channels are displayed in orange

Channel 2 : unallocated channels appear in green.

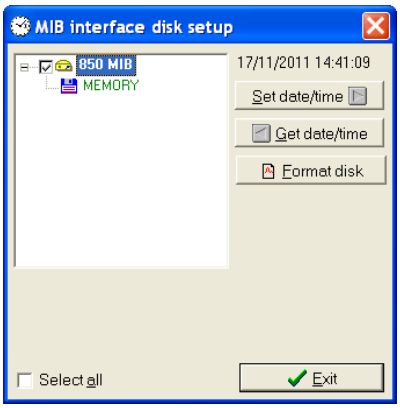
If the CompassCDS acquisition and control computer does not communicate with the interface (no physical connection to the network or to the RS-232 connector, power supply not connected, etc.), no channel will appear for this interface and its name will be preceded by a red cross: MIB.

For each STAR 800 & 850 MIB, it is also possible to display the following information by putting the mouse cursor onto the STAR 800 & 850 MIB name: Interface Type: STAR 800 & 850 MIB, the Mac address, the serial number, the IP address.

Click on to display the MIB list with details about connections (analog, relay).

Click on to display the MIB list in medium or reduced size, that is to say the MIB list and the channel number [e.g., analog (1/2) means that 2 analog channels are declared and that one is allocated] or only the MIB names.

Click to display information on the buffer card configuration.



Set date/time : to send the CompassCDS Station date/time into the STAR 800 & 850 MIB

Get date/time : to display the date/time stored in the STAR 800 & 850 MIB

Format disk : to format information stored on the card

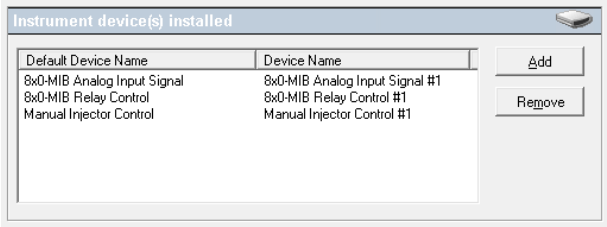
The button updates the Supervisor if pressed.

System Configuration

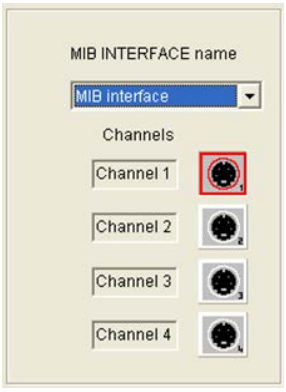
System using analog channel(s) and relay(s)

To configure a system using both analog input channels and relay(s) outputs on an STAR 800 & 850 MIB, follow these instructions:

1. Configure the STAR 800 & 850 MIB using the Interface Configuration tool.
2. Create the instrument. In the list of devices screen, select and add the STAR 800 & 850-MIB Analog Input Signal and the STAR 800 & 850-MIB Relay Control drivers:

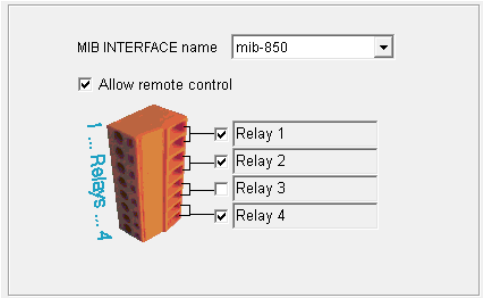


3. In the configuration screen, select the STAR 800 & 850 MIB and define the STAR 800 & 850 MIB and the desired analog channel(s) by clicking on the desired channel icon:



The previous picture represents an STAR 800 & 850 MIB fitted with two 2-channel ADC cards, i.e., 4 channels in total. Selected channels will appear as red and it is possible to modify the Channel name for each selected channel. The channel positions on the 800 MIB appear as follows:

4. In the configuration screen, select the STAR 800 & 850 MIB Relays Control icon, define the STAR 800 & 850 MIB, and select the desired relay(s) to be controlled. It is possible to modify the relay descriptions in this screen.



System using RS-232 port to control instrument

To configure a system controlled via an STAR 800 & 850 MIB serial port (RS232), follow the instructions:

1. Configure the STAR 800 & 850 MIB using the Interface Configuration tool.

2. Create the instrument. In the list of devices screen, select the instrument driver that is connected to the STAR 800 & 850 MIB via the serial port (RS232).
3. In the system configuration screen, select the module/Instrument screen, then select the STAR 800 & 850 MIB and the serial port (ex: Valco Valves, CTC Combi PAL).

Diagnostics

If an MIB is preceded by a red cross in the supervisor:

1. Verify that the interface is switched ON.
2. Verify that the IP address captured in Interface configuration is correctly entered, and that it corresponds to the IP address of the interface.
3. Verify that a valid Ethernet cable connection exists between the interface and the hub (or wall plug).
4. If the interface is still not detected, re-program the network parameters of the interface.

If the above steps do not solve the communication problem, please contact Scion Instruments Technical Support.